Application of digital technologies in circular economy
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ABSTRACT TITLE

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Motivation

It has observed through the review of the globally published academic journals that digital technologies are playing a role in circular economy transitions in developed countries through sustainable supply chain performance. In developing or underdeveloped countries, there is a significant need for CE systems along with reasonable progress in innovation and policy. This study will focus on the application of digital technologies in circular economy transition through sustainable supply chain performance: A case study of Pakistan based logistics companies for the circular economy transition.

Purpose

This research paper aims to identify and review how the developed countries' logistics companies have used the best digital technologies (Big Data and IoT) in a circular supply chain for a smooth circular economy transition. The research will base on empirically conducted data to help the underdeveloped and developing countries like Pakistan. Pakistan has selected due to an opportunity for manufacturers, traders, and logistics service providers in circular economy transition based on the world's best supply chain models, practices, and policies.

Research Approach

The quantitative and qualitative methods will help to get empirical data. The questionnaire would be drafted to fill by the managers and senior staff and interviews of the CEOs, Directors, and Owners of the companies of Pakistani logistics industry. The secondary data gathered from existing published and reviewed papers, industry, and governmental organizations will support the primarily collected data from logistics companies. Furthermore, the analysis based on primary and secondary data would help to achieve the aim of the research.

Findings

This research paper will show that combined or accumulative research of the circular economy, digital technologies, and sustainable supply chains are at the very initial stages due to limited research, practical implementation, and case studies. It would help to assess and forecast that digital technologies play a role in the CE transition through existing and proposed PSS business models.

Originality

The findings of the empirically conducted data will identify the missing links of the previous research for the present and future scope of the CE, DT, and SSCM fields. The newly proposed and identified techniques will help in the new policies or models of CE transition through digital technologies and sustainable supply chain management.

Research and Practical Impact

This research would identify the gaps and opportunities for researchers, professionals, and government bodies in circular economy transition through proposed new policies and models based on the previous data.

Keywords

Circular Economy, Sustainable Supply Chain Management, Digital Technologies, Big Data, Internet of Things

Paper Type

Conference Paper